

What is claimed is:

1. An information display apparatus having a display device, comprising:

5 a storage storing explanation information concerning keywords;

a keyword searching unit for searching for a keyword through the explanation information stored in the storage;

a keyword display control unit for displaying in a list form on the display device plural keywords found by the keyword  
10 searching unit together with parts of explanation information respectively concerning the found keywords;

a keyword designating unit for designating either of the plural keywords displayed on the display device by the keyword display control unit; and

15 an explanation-information display control unit for displaying in a list form on the display device plural pieces of explanation information concerning the keyword designated by the keyword designating unit in such fashion that the explanation information is associated with the designated  
20 keyword, over the parts of the explanation information respectively concerning the found keywords displayed by the keyword display control unit in an overlapping manner.

2. The information displaying apparatus as recited in claim  
25 1, wherein

the keyword display control unit displays in a list form the plural keywords found by the keyword searching unit in a

first display area on the display device and further displays the parts of the explanation information of the plural keywords in a second display area adjacent to the first display area on the display device in such manner that both the explanation  
5 information and the keywords displayed in the first display area are associated with each other, and

the keyword designating unit designates one of the plural keywords that are displayed in the first display area by the keyword display control unit, and

10 the explanation-information display control unit displays in a list form the plural pieces of explanation information concerning the keyword designated by the keyword designating unit over the parts of the explanation information that are displayed in the second display area by the keyword  
15 display control unit in an overlapping manner, and further displays a balloon corresponding to the designated keyword so as to surround the plural pieces of explanation information.

3. The information displaying apparatus as recited in claim  
20 2, wherein,

when all the plural pieces of explanation information concerning the designated keyword can not be displayed within the second display area, the explanation-information display control unit displays a partially broken balloon around the  
25 plural pieces of explanation information displayed in the second display area to indicate that there is at least an additional piece of explanation information that is not

displayed in the second display area.

4. The information displaying apparatus as recited in claim 1, wherein

5 the keyword display control unit displays first predetermined number of characters included in each of the parts of the explanation information; and

the explanation-information display control unit displays first predetermined number of characters included in 10 each of the plural pieces of explanation information of the designated keyword.

5. The information displaying apparatus as recited in claim 2, wherein

15 the keyword display control unit displays in the second display area the predetermined number of characters included in each of the parts of the explanation information of the keywords to the extent that such number of characters can be displayed within the second display area, and

20 the explanation-information display control unit displays in the second display area the predetermined number of characters included in each of the plural pieces of explanation information of the designated keyword over the parts of the explanation information displayed in the second 25 display area to the extent that such number of characters can be displayed within the second display area.

6. The information displaying apparatus as recited in claim 1, further comprising:

a designated-keyword changing unit for changing a designated keyword from the previously designated keyword to other keyword; wherein the explanation-information display control unit displays in a list form the plural pieces of explanation information concerning the designated keyword changed by the designated-keyword changing unit over the explanation information concerning the keywords displayed in a list form by the keyword display control unit.

7. The information displaying apparatus as recited in claim 1, further comprising:

an explanation-information selecting unit for selecting either of the plural pieces of explanation information displayed in a list form; and

an explanation-information selection display control unit for displaying on the display device all the piece of explanation information selected by the explanation-information selecting unit.

8. The information displaying apparatus as recited in claim 1, further comprising:

a search-character input unit for inputting search characters; wherein, when the search characters consisting of one word are entered through the search-character input unit, the keyword searching

unit searches for a keyword through the keywords stored in the storage, which keyword coincides with the word included in the entered search characters, and when the search characters consisting of plural words are entered through the

5 search-character input unit, the keyword searching unit searches for a keyword through the keywords stored in the storage, which keyword coincides with or includes a predetermined one of the plural words included in the entered search characters,

10 and the apparatus further comprising:  
a first search-character judging unit for judging whether or not the search characters consisting of plural words entered through the search-character input unit are included in the explanation information concerning each of the keywords  
15 displayed by the keyword display control unit; and

a highlight control unit for displaying a keyword corresponding to the explanation information, in which the first search-character judging unit determines the search characters consisting of plural words are included, in a  
20 different way from other keywords.

9. The information displaying apparatus as recited in claim 8, further comprising:

a keyword selecting unit for selecting either of the  
25 plural keywords displayed in a list form on the display device by the keyword display control unit;

a selected-keyword explanation-information display

control unit for displaying the whole explanation information concerning the keyword selected by the keyword selecting unit;

a search-character locating unit for locating a portion in the explanation information displayed by the

5 selected-keyword explanation-information display control unit, in which portion the search characters consisting of plural words entered through the search-character input unit are included; and

a first search-character highlight display control unit  
10 for displaying the portion in the explanation information located by the search-character locating unit in a different manner from other portions.

10. The information displaying apparatus as recited in  
15 claim 8, further comprising:

a second search-character judging unit for judging whether or not the search characters consisting of plural words entered through the search-character input unit are included in the plural pieces of explanation information displayed by  
20 the explanation-information display control unit; and

an explanation-information highlight display control unit for displaying a piece of explanation information, in which the second search-character judging unit determines the search characters consisting of plural words are included, in a  
25 different way from other explanation information.

11. The information displaying apparatus as recited in

claim 7, further comprising:

a search-character input unit for inputting search characters; wherein,

when the search characters consisting of one word are  
5 entered through the search-character input unit, the keyword  
searching unit searches for a keyword through the keywords  
stored in the storage, which keyword coincides with the word  
included in the entered search characters,

and when the search characters consisting of plural words  
10 are entered through the search-character input unit, the  
keyword searching unit searches for a keyword through the  
keywords stored in the storage, which keyword coincides with  
or includes a predetermined one of the plural words included  
in the entered search characters,

15 and the apparatus further comprising:

a search-character locating unit for locating a portion  
in the explanation information displayed by the  
explanation-information selection display control unit, in  
which portion the search characters consisting of plural words  
20 entered through the search-character input unit are included;  
and

a second search-character highlight display control  
unit for displaying the portion in the explanation information  
located by the search-character locating unit in a different  
25 manner from other portions.

12. The information displaying apparatus as recited in claim

8, wherein

the first search-character judging unit replaces data of “~” contained in the explanation information with a predetermined word included in the search characters consisting of the plural words entered through the search-character input unit, and judges whether or not the entered search characters consisting of the plural words are included in the explanation information with the data of “~” replaced with the predetermined word.

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13. The information displaying apparatus as recited in claim 9 or claim 11, wherein

the search-character locating unit replaces data of “~” contained in the explanation information with a predetermined word included in the search characters consisting of the plural words entered through the search-character input unit, and locates a portion in the explanation information with the data of “~” replaced with the predetermined word, in which portion the entered search characters consisting of the plural words are included.

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14. A recording medium storing a computer readable program for controlling a computer that works to perform an information displaying procedure in an information displaying apparatus provided with a display device, which program comprises:

25

a step of making the computer store explanation information concerning keywords;



a step of making the computer search for a keyword through the stored explanation information;

a step of making the computer display in a list form on the display device plural searched keywords together with parts  
5 of explanation information respectively concerning the searched keywords;

a step of making the computer designate either of the plural keywords displayed on the display device; and

a step of making the computer display in a list form on  
10 the display device plural pieces of explanation information concerning the designated keyword in such fashion that the explanation information is associated with the designated keyword, over the parts of the explanation information displayed on the display device, in an overlapping manner.

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15. An information displaying apparatus having a display device, comprising:

a storage storing keywords and plural pieces of explanation information concerning each keyword;

20 a search character input unit for inputting search characters containing a series of words;

a keyword searching unit for searching for one of the series of words entered through the search character input unit through the keywords stored in the storage;

25 an explanation-information judging unit for judging whether or not the series of words entered through the search character input unit are included any of the plural pieces of

explanation information concerning the keyword searched by the keyword searching unit; and

a searched-information display unit for displaying on the display device a piece of the explanation information together with the keyword, in which piece of explanation information the explanation-information judging unit determines the series of words are included.

16. The information displaying apparatus as recited in claim 15, wherein

the searched-information display unit displays a keyword of each of the plural pieces of explanation information in which the explanation-information judging unit determines the series of words are included, together with parts of plural pieces of explanation information.

17. The information displaying apparatus as recited in claim 15, wherein

the keyword searching unit has a keyword selecting unit for selecting a word out of the series of words entered through the search character input unit; wherein the keyword searching unit searches for the word selected by the keyword selecting unit through the keywords stored in the storage.

18. The information displaying apparatus as recited in claim 17, wherein

the keyword selecting unit selects as a keyword either

of a noun, a verb and an adjective included in the series of words entered through the search character input unit.

19. The information displaying apparatus as recited in claim  
5 17, further comprising:

an other-keyword selecting unit for selecting a word to be searched for other than the word selected by the keyword selecting unit, when the explanation-information judging unit determines that there is no explanation information including  
10 any of the series of words entered through the search character input unit.

20. The information displaying apparatus as recited in claim  
15 15, wherein

the keyword searching unit searches for the whole of the series of words entered through the search character input unit through the keywords stored in the storage,

and the searched-information display unit displays the explanation information in which the explanation-information  
20 judging unit determines the series of words are included, together with the keyword, and further displays keywords consisting of the series of words searched by the keyword searching unit.

25 21. The information displaying apparatus as recited in claim 15, wherein

the explanation-information judging unit replaces data

of “~” included in the explanation information concerning the keyword searched by the keyword searching unit with a word selected to be searched for from among the series of words entered through the search character input unit, and judges  
5 whether or not the entered series of words are included in the explanation information in which data of “~” is replaced with the selected word.

22. The information displaying apparatus as recited in  
10 claim 21, wherein  
the searched-information display unit replaces data of “~” included in the explanation information with a word selected to be searched for from among the series of words entered through the search character input unit, in which  
15 explanation information the explanation-information judging unit determines the series of words are included, and displays the explanation information in which data of “~” is replaced with the selected word, together with the corresponding keyword.

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23. The information displaying apparatus as recited in claim 15, wherein

the explanation-information judging unit replaces word-class data of “V” included in the explanation information  
25 concerning the keyword searched by the keyword searching unit with a word selected to be searched for from among the series of words entered through the search character input unit, and

judges whether or not the entered series of words are included in the explanation information in which the word-class data of "V" is replaced with the selected word.

5 24. The information displaying apparatus as recited in claim 23, wherein

the searched-information display unit replaces word-class data of "V" included in the explanation information with a word selected to be searched for from among the series  
10 of words entered through the search character input unit, in which explanation information the explanation-information judging unit determines the series of words are included, and displays the explanation information in which the word-class data of "V" is replaced with the selected word, together with  
15 the corresponding keyword.

25. The information displaying apparatus as recited in either of claim 1 through claim 10, further comprising:

a second keyword selecting unit for selecting either of  
20 the plural keywords displayed by the searched-information display unit;

a second selected-keyword explanation-information display control unit for displaying the whole explanation information concerning the keyword selected by the second  
25 keyword selecting unit;

a second search-character locating unit for locating a portion in the explanation information displayed by the second

selected-keyword explanation-information display control unit,  
in which portion the search characters consisting of plural  
words entered through the search-character input unit are  
included; and

5           a third search-character highlight display control unit  
for displaying the portion in the explanation information  
located by the second search-character locating unit in a  
different manner from other portions.

10   26.       The information displaying apparatus as recited in  
claim 15, wherein

          the searched-information display unit displays the  
explanation information with a "sample" mark or a "phrase"  
mark added, together with the keyword, in which explanation  
15   information the explanation-information judging unit  
determines the series of words are included.

27.       A recording medium storing a computer readable program  
for controlling a computer that works to perform an information  
20   displaying procedure in an information displaying apparatus  
provided with a display device, which program comprises:

          a step of making the computer store keywords and plural  
pieces of explanation information concerning each keyword;  
a step of making the computer input search characters;

25           a step of making the computer search for one of the  
entered series of words through the keywords stored in the  
storage;

a step of making the computer judge whether or not the entered series of words are included any of the plural pieces of explanation information concerning the searched keyword; and

- 5 a step of making the computer display on the display device the piece of the explanation information which includes the entered series of words, together with the corresponding keyword.